Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

ENTOMOLOGY.

Notes on Harvest-spiders.—In my previous papers upon the Phalangiidæ I have used the genus Oligolophus of C. Koch adopting the characters given by Semon, in his Arachnides de France, who, in a footnote (v. VII, p. 238), says: "Le genre Oligolophus a été créé par le Dr. C. Koch de Francfort pour le *P. terricola* et ses congénères, et caractérisé par l'absence de fausses articulations aux metatarses de la premièrc paire de pattes, tandis que dans son genre Opilio les fausses articulations sont bien visibles. Ce caractère est pour moi de peu de valeur; aussi, tout en adaptant le genre Oligolophus, lui donne je une composition et une caractéristique differentes de celles de son auteur. En effet, les fausses articulations sont tres-variables dans une meme èspece, et elles manquent aux metatarses de la premiere paire chez les *alpinus* et *morio* que le Dr. C. Koch laisse dans le genre Opilio, tandis quèlles sont faiblement rudiqueés chez le *glacialis*, qui en est si voisin. Je joins aux Oligolophus les quelques especes pour lesquelles M. le Dr. T. Thorell a formé le genre Mitopus."

This was published in 1879, the genus having been first erected in 1872. In 1876 Dr. Thorell published his Mitopus. This distinguished arachnologist has kindly sent me a copy of the paper in which his characterization occurs, and in a recent letter says: "I see you have (with M. Semon) adopted the name Oligolophus instead of Mitopus Thor. The genus Oligolophus was founded by a Dr. Carl or Karl Koch of Wiesbaden (later of Frankfort a.M.) for those forms of the genus Opilio C. L. Koch in which the metatarsi are without "articulationes spurio." But this is a character of so little importance that even in the same specimen you may find that one side of the body belongs to the genus Opilio of K. Koch while the other side belongs to his Oligolophus. As also in my Mitopus the metatarsi may want the "'articulationes spurio.' Mitopus is founded on quite another, and as I believe, a good and constant character—the presence of a strong tooth on the under side of the first article of the mandibles.'"

In view of these facts I now give preference to Mitopus rather than Oligolophus. The characters of Mitopus according to Dr. Thorell are as follows: First joint of mandibles armed below with a strong, pointed tooth. Ocular tubercle not constricted, denticulate above, of nearly equal length and breadth. Claw of palpus not denticulate;

maxillary lobes of second pair of legs similar to Phalangium; the skin is not coriaceous.

Our species of this genus are *pictus* and *ohioensis*.

The two western species described by Dr. H. C. Wood as *Phalangium favosum* and *P. nigrum* which on account of their hard skin I have heretofore referred with some doubt to the sub-family Sclerosomatinæ prove not to belong there, as I learn from Dr. T. Thorell to whom I submitted specimens, and who writes that they represent undescribed genera. It seems to me that they differ sufficiently from the Phalangiinæ to form a distinct subfamily. For *P. favosum* I have erected the genus Trachyrhinus, which is characterized as follows:

Body very hard: dorsum a large plate with a rough, coarsely punctate surface. Front margin of cephalothorax furnished with two denticulated tubercles. Eye eminence prominent with two rows of large tubercles having spinose tips. Legs rather long, thickly beset with spinose tubercles. Pores on margin of cephalothorax rather small, oval. Palpal claw smooth; inner distal angle of femur very slightly, and of patella quite strongly developed. First joint of mandible furnished with a tooth on lower surface.

One species *Trachyrhinus favosus* (Wood) inhabiting the Western States.

The *P. nigrum* of Dr. Wood may serve as the type of the new genus Mesosoma, having the following characters:

Dorsum a firm hard plate thickly studded with small hemispherical tubercles. Eye eminence of nearly equal height, length and breadth, covered with similar tubercles, and not carinated. Palpi moderately robust not branched, and furnished with many tubercles; palpal claw pectinate. Tooth on underside of first joint of mandibles. Legs short, coriaceous, robust. Lateral pores on upper margin cephalothorax very distinct, subcircular.

One species, *Mesosoma nigrum*, found in the western and southwestern States. It is possible that the western form described by Wood may be different from Say's species. The latter records his species as common in Georgia and the Carolinas, but I think none have since been reported from this locality.

These two species belong neither to the Phalangiinæ nor the Sclerosomatinæ as now restricted by European authors, having some characters of each. They apparently form a new sub-family which may be called the Mesosomatinæ, and be defined as follows:

Body very hard, most of the dorsal segments being united in a firm dense plate. Posterior dorsal and the ventral segments having their margins developed into thin overlapping plates, especially in the males, the ventral plates being sometimes obsolete in gravid females. Pores on margin of cephalothorax distinct. Anal piece unique. Maxillary lobe of palpi with two tubercles.—CLARENCE M. WEED.

The Cattle Tick.—The Journal of Com. Medicine and Veterinary Archives for July, 1891, and January, '92, contains two articles by Dr. Cooper Curtice upon this insect (*Boöphilus bovis*). The first contains an account of the life history; while the last presents the habits of the species. Dr. Curtice refers this species to the genus Boöphilus (ox loving), " in which the rostrum and palpi are very short; the capitulum wider than the combined width of the palpi and rostrum; the second and third segments of the palpi nearly equal and each widest about the middle where the sides project in an angle; eyes present." This species has been formerly referred to the genus Ixodes.

Dr. Curtice recommends kerosene emulsion for destroying the cattle ticks, especially when the cattle are shipped north, because of the supposed relation which the ticks bear to Texas fever. I wish here to call attention to a remedy for this pest, with a few additional facts as to the ticks being the means by which the germs of Texas Fever are disseminated.

In regard to remedy there is but one objection to kerosene emulsion and this is that in order to keep the cattle free from the ticks the emulsion would have to be applied almost daily. This is especially true where the cattle are pastured in herds where they may be supplied with a fresh lot of ticks every day. A far better remedy consists in feeding the cattle equal parts of sulphur and salt. This should not be given occasionally, but kept where the cattle may have free access to it at any time. That this remedy will keep the cattle free if only given occasionally is not claimed, nor is it true. But it *is* very effectual, however, if the sulphur and salt be kept where the cattle may have free access to it. It is probable that the sulphur acts as a repellent owing to the fact that it is very largely eliminated from the body through the skin. It is hence used in the treatment of many skin diseases. This matter of a proper remedy is of vast importance throughout the South where the cattle have some portions of the body constantly covered with the ticks throughout the summer and autumn months. The decrease of flesh and milk consequent from the attack of the ticks must be considerable.

That ticks are the means of disseminating the germs of Texas fever is a much disputed point. There seems to be some doubt, also, as to the exact nature of the germs of Texas fever, some claiming it to be a small protozoan attacking the red corpuscles of the blood, while others claim that the true germ is an ovoid bacterium, between a micrococcus and a bacillus, not directly attacking the red corpuscles. That ticks *may* be *a* means of spreading the germs of Texas fever is quite probable. Last October Dr. Billings of Nebraska obtained pure cultures of an ovoid bacterium from ticks sent him from here. Several calves inoculated with the cultures were almost immediately taken with Texas fever. This would seem to show that the germs may exist in the ticks, but that they spread the germs to northern cattle or that they are the principal means of the dissemination of the germs are as yet open questions.—HOWARD EVARTS WEED, Mississsippi Agricultural College.

Recent Bulletins.—That the experiment stations are doing important work in disseminating information concerning injurious insects, as well as in original investigations of them, is shown by the numerous bulletins upon the subject. In New Mexico, Prof. Townsend issues as Bulletin No. 5, of his station, a discussion of certain fruit insects attracting attention in that region. In Iowa, Prof. Osborn discusses "Lice affecting domestic animals," (Bulletin No. 16) and in Oregon, Prof. Washburn briefly describes (Bulletin No. 18) a large number of injurious species. A particularly attractive bulletin (No. 40) comes from the Kentucky Station. It is a discussion of "Some common pests of the farm and garden" by Prof. H. Garman. Like all of Prof. G.'s publications it is carefully prepared, and is well illustrated, several of the figures being new. It is a pity that more station bulletins cannot be gotten up in as good shape as regards proof-reading, typography and paper as this.

The subject of spraying has received attention in bulletins from the Pennsylvania, New Jersey, Michigan, Massachusetts, and other stations.

Notes and News.—At a recent meeting of the Cambridge Entomological Club the following officers were elected for the current year: President, Rev. W. J. Holland, Pittsburgh, Pa.; Secretary, Roland Hayward; Treasurer, Samuel Henshaw; Librarian, S. H. Scudder; Executive Committee, S. H. Scudder and J. H. Emerton.

In a recent *Journal of the Columbus Horticultural Society* (v. VI, No. 4) Mr. F. M. Webster has a readable paper on "Insect Parasites," with fifteen illustrations.

According to *Science* the entomological collection of the late Henry Edwards has gone into the possession of the American Museum of Natural History, New York City. Friends in theatrical circles subscribed $10,000 and the Museum $5,000 for its purchase. The collection includes more than 350,000 specimens.

From *Psyche* we learn that a study of California butterflies, and especially their comparison with those of Eastern America and Europe, leads S. H. Scudder, in the *Overland Monthly* for April to claim that the highest type of human civilization is to arise on the Pacific coast.

Prof. C. H. T. Townsend of the New Mexico Agricultural College is vigorously prosecuting his studies of American Tachinidæ, as is shown by numerous recent papers in entomological periodicals.

Prof. J. B. Smith has recently published as Bulletin No. 851 of the U. S. National Museum a Revision of the Species of Mamestra.

In an admirably illustrated paper Dr. C. V. Riley gives, in recent *Insect Life* (v. IV, Nos. 7 and 8) an interesting account of the larger digger wasp (*Sphecius spheciosus*), concluding with this suggestive paragraph: "If man could do what these wasps have done from time immemorial, viz., preserve for an indefinite period the animals he feeds on by the simple insertion of some toxic fluid in the tissues, he would be able to revolutionize the present methods of shipping cattle and sheep, and to obviate much of the cruelty which now attends the transportation of live stock and much of the expense involved in cold storage."

MICROSCOPY.[1]

Notes on Bone Technique.—In preparing bone for sectioning it is well to have fresh material taken from a young individual. After the soft parts are removed the bone is cut into short pieces and then macerated in water until the medulla is easily washed out; they are then ready to section.

Preparations nearly as good as those obtained by maceration may be made from fresh tissue. Thin sections are cut from the desired region with a fine saw; from these the medulla should be carefully washed out under a jet of water; they are then ground until the desired thinness is reached, again washed, dried and mounted. The grinding may be done with a file or on a revolving grindstone or with emery on a dentist's lathe[2], or between pieces of compact pumice stone, followed

---

[1] Edited by C. O. Whitman, Clark University, Worcester, Mass.

[2] Nealey, Am. Mon. Micro. Jour., 1884.